Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (canceled)

5. (currently amended) A machine-readable medium that provides instructions, which when executed by a set of processors of one or more processors, cause said set of processors to perform operations comprising:

determining a subset of queues to be of highest priority from a set of queues eligible to transmit;

determining one of the subset of queues to be most eligible to transmit, wherein determining one of the subset of queues to be most eligible to transmit comprises:

calculating the first value for the one of the subset of queues as being less than a transmit clock value and having a greatest difference from the transmit clock value;

transmitting data from the one of the subset of queues;

updating a first value indicating when the one of the subset will be eligible to transmit; and

updating a second value indicating when the subset of queues will be eligible to transmit.

6. (canceled)

7. (original) The machine-readable medium of claim 5 wherein the first and second value is updated with a cost of a set of data transmitted from the one of the subset of queues.

8. (original) The machine-readable medium of claim 5 wherein updating the first and second value comprises:

increasing the first and second value with a size of a set of data transmitted from the one of the subset of queues; and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the one of the subset of queues and the subset of queues.

9. (original) The machine-readable medium of claim 5 further comprising maintaining a third value indicating unused transmit time.

10. (original) The machine-readable medium of claim 5 further comprising

determining the subset of queues to be ineligible to transmit;

determining a second subset of queues to be of highest priority of a second set of queues eligible to transmit;

determining one of the second subset of queues to be most eligible to transmit;

transmitting data from the one of the second subset of queues;

updating a third value indicating when the one of the second subset will be eligible to transmit; and

updating a fourth value indicating when the second subset of queues will be eligible to transmit.

11. (original) The machine-readable medium of claim 5 further comprising

determining the subset of queues to be of highest priority from the set of queues eligible to transmit;

determining a second one of the subset of queues to be most eligible to transmit;

transmitting data from the second one of the subset of queues;

updating a third value indicating when the second one of the subset will be eligible to transmit; and

updating the second value indicating when the subset of queues will be eligible to transmit.

12. (currently amended) A machine-readable medium that provides instructions, which when executed by a set of processors of one or more processors, cause said set of processors to perform operations comprising:

prioritizing a first and second set of queues, the first set of queues being of higher priority;

determining one of the first set of queues to be most eligible to transmit data, wherein determining one of the first set of queues to be most eligible to transmit data comprises:

calculating the first value for the one of the first set of queues as being less than a transmit clock value and having a greatest difference from the transmit clock value;

transmitting a set of data from the one of the first set of queues;

updating a first value with a cost of the set of data, the first value indicating when the one of the first set of queues will be eligible to transmit; and

updating a second value indicating when the first set of queues will be eligible to transmit with the cost of the set of data.

13. (canceled)

14. (original) The machine-readable medium of claim 12 wherein updating the first and second value comprises:

increasing the first and second value with a size of the set of data transmitted; and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the one of the first set of queues and the first set of queues.

15. (original) The machine-readable medium of claim 12 further comprising maintaining a third value indicating unused transmit time.

16. A machine-readable medium that provides instructions, which when executed by a set of processors of one or more processors, cause said set of processors to perform operations comprising:

determining if at least one of a plurality of groups is eligible to transmit, each of the plurality of groups comprising a set of queues;

selecting an eligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is eligible to transmit;

selecting an ineligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is not eligible to transmit;

determining a queue having data as most eligible from the set of queues of the selected one of the plurality of groups, wherein determining a queue having data as most eligible from the set of queues of the selected one of the plurality of groups comprises:

calculating the first value for the queue as being less than a transmit clock value and having a greatest difference from the transmit clock value;

transmitting a set of data from the queue;

updating a first value with the cost of the set of data, the first value indicating when the transmitting queue will be eligible to transmit; and

updating a second value with the cost of the set of data, the second value indicating when the selected one of the plurality of groups will be eligible to transmit.

17. (canceled)

18. (original) The machine-readable medium of claim 16 wherein updating the first and second value comprises:

increasing the first and second value with a size of the set of data transmitted; and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the transmitting queue and the selected one of the plurality of queues.

19. (original) The machine-readable medium of claim 16 further comprising maintaining a third value indicating unused transmit time.

20. (currently amended) An apparatus comprising:

a set of queues to store a set of data;

a first logic coupled to the set of queues, the first logic to determine priority and eligibility of a plurality of subsets of the set of queues, wherein the first logic to determine eligibility of a plurality of subsets comprises:

logic to calculate the first value for the one of the first set of queues as being less than a transmit clock value and having a greatest difference from the transmit clock value;

a second logic coupled to the first logic and the set of queues, the second logic to determine eligibility of each queue of one of the plurality of subsets, the one being indicated by the first logic; and

a transmitting unit coupled to the set of queues, the transmitting unit to transmit the set of data.

21. (original) The apparatus of claim 20 wherein each of the set of queues is allocated for separate entities.

22. (original) The apparatus of claim 20 further comprising:

the first logic to update a first eligibility value for a transmitting subset of the set of queues; and

the second logic to update a second eligibility value for a transmitting queue.

23-26. (canceled)

27. (currently amended) A computer implemented method comprising:

prioritizing a first and second set of queues, the first set of queues being of higher priority;

determining one of the first set of queues to be most eligible to transmit data, wherein determining one of the first set of queues to be most eligible to transmit data comprises:

calculating the first value for the one of the first set of queues as being less than a transmit clock value and having a greatest difference from the transmit clock value;

transmitting a set of data from the one of the first set of queues;

updating a first value with a cost of the set of data, the first value indicating when the one of the first set of queues will be eligible to transmit; and

updating a second value indicating when the first set of queues will be eligible to transmit with the cost of the set of data.

28. (canceled)

29. (original) The computer implemented method of claim 27 wherein updating the first and second value comprises:

increasing the first and second value with a size of the set of data transmitted; and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the one of the first set of queues and the first set of queues.

30. (original) The computer implemented method of claim 27 further comprising maintaining a third value indicating unused transmit time.

31. (currently amended) A computer implemented method comprising:

determining if at least one of a plurality of groups is eligible to transmit, each of the plurality of groups comprising a set of queues;

selecting an eligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is eligible to transmit;

selecting an ineligible one of highest priority of the plurality of groups having data to transmit upon determining at least one of the plurality of groups is not eligible to transmit;

determining a queue having data as most eligible from the set of queues of the selected one of the plurality of groups, wherein determining a queue having data as most eligible from the set of queues of the selected one of the plurality of groups comprises:

calculating the first value for the queue as being less than a transmit clock value and having a greatest difference from the transmit clock value;

transmitting a set of data from the queue;

updating a first value with the cost of the set of data, the first value indicating when the transmitting queue will be eligible to transmit; and

updating a second value with the cost of the set of data, the second value indicating when the selected one of the plurality of groups will be eligible to transmit.

32. (canceled)

33. (original) The computer implemented method of claim 31 wherein updating the first and second value comprises:

increasing the first and second value with a size of the set of data transmitted; and

modifying the increased first and second value respectively with a first and second weight respectively corresponding to the transmitting queue and the selected one of the plurality of queues.

34. (original) The computer implemented method of claim 31 further comprising maintaining a third value indicating unused transmit time